

ABSTRACT OF THE DISCLOSURE

This invention provides an apparatus and the like,
which render an object from a predetermined view
direction by a method using microfacet billboard
5 using 2D images obtained by photographing an object
to be rendered from a plurality of photographing
directions, and a depth image of the object to be
rendered. This method obtains the geometrical shape of
the object to be rendered on the basis of the depth
10 image and the like, and approximates the geometrical
shape using a set of microfacets whose directions
change depending on the view direction. By mapping 2D
images selected based on the view direction and
photographing directions onto the respective
15 microfacets as texture images, an arbitrary shaped
object and landscape can be efficiently rendered.